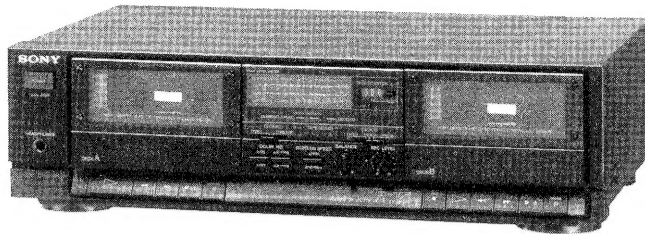



# TC-W345

## SERVICE MANUAL

*US Model  
Canadian Model  
AEP Model  
E Model  
Australian Model*



\* Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.

"DOLBY", the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

Model Name Using Similer Mechanism	TC-W31 (US, Canadian, E model) TC-W170 (AEP model) NEW (Australian model)	
Tape Transport Mechanism Type	DECK-A	TCM-180VA-H3
	DECK-B	TCM-180VB-H3

### SPECIFICATIONS

#### Recording system

4-track 2-channel stereo

#### Fast-forward and rewind time

Approx. 120 sec. (with C-60 cassette)

#### Bias

AC bias

#### Signal-to-noise ratio (NAB, at peak level)

Dolby NR switch Cassette	OFF	B-TYPE ON	C-TYPE ON
TYPE IV	58 dB	66 dB	73 dB
TYPE II	57 dB	65 dB	72 dB
TYPE I	55 dB	63 dB	70 dB

#### Total harmonic distortion

1.0% (with Sony METAL-ES cassette)

#### Frequency response (DOLBY NR OFF)

TYPE IV cassette	30 - 15,000 Hz ( $\pm 3$ dB) 30 - 13,000 Hz (OVU recording)
TYPE II cassette	30 - 14,000 Hz ( $\pm 3$ dB)
TYPE I cassette	30 - 13,000 Hz ( $\pm 3$ dB)

#### Cassette

Type IV: Sony Type IV (METAL)

Type II: Sony Type II (HIGH)

Type I: Sony Type I (NORMAL)

#### Wow and flutter

$\pm 0.16\%$  W Peak (IEC)

0.11% WRMS (NAB)

$\pm 0.2\%$  W Peak (DIN)

#### Inputs

Line inputs (phono jacks)	Sensitivity	77.5 mV ( $-20$ dB)
	Input impedance	50 k ohms

#### Outputs

Line outputs (phono jacks)	Rated output level	0.44 V ( $-5$ dB) at a load impedance of 47 k ohms
	Load impedance	Over 10 k ohms
Headphones (stereo phone jack)	Output level	0.3 mW at a load impedance of 32 ohms

### General

#### Power requirements

Model for USA, Canada :

120 V AC, 60 Hz

Model for European countries:

220 - 230 V AC, 50/60 Hz

Model for UK, Australia :

240V AC, 50/60Hz

Model for other countries:

120, 220, or 240 V AC adjustable, 50/60 Hz

18 W

#### Power consumption

#### Dimensions

Approx. 430  $\times$  123  $\times$  280 mm (w/h/d)

(17  $\times$  4  $\frac{7}{8}$   $\times$  11  $\frac{1}{8}$  inches) including projecting

parts and controls

Approx. 3.6 kg (7 lbs 15 oz)

#### Mass

### Supplied accessories

Audio connecting cords (2)

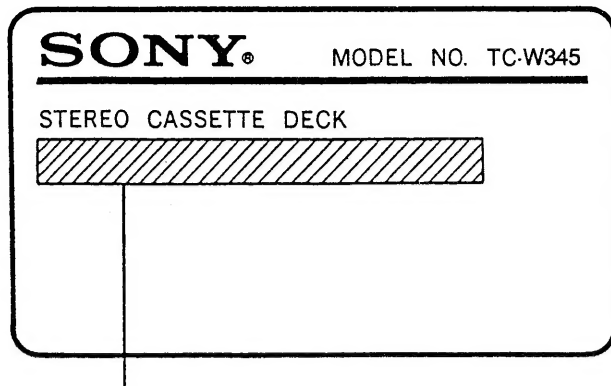
Design and specifications subject to change without notice.

**STEREO CASSETTE DECK**  
**SONY®**



## MODEL IDENTIFICATION

— Specification Label —



US, Canadian model: AC 120V 60Hz 18W  
 AEP model: AC 220V~50/60Hz 18W  
 E model: AC 120, 220, 240V~50/60Hz 18W  
 Australian model: AC 240V~50/60Hz 18W

## TABLE OF CONTENTS

Section	Title	Page
1.	GENERAL	
	Identifying the Parts .....	3
2.	MECHANICAL ADJUSTMENT .....	4
3.	ELECTRICAL ADJUSTMENT .....	4
	Record/ Playback Head Azimuth Adjustment [Deck A/ Deck B] ..	4
	Tape Speed Adjustment [Deck A/ Deck B] .....	4
	Playback Level Adjustment [Deck A/ Deck B] .....	5
	Record Bias Adjustment [Deck B] .....	5
	Record Gain Adjustment [Deck B] .....	5
4.	DIAGRAMS	
4-1.	Printed Wiring Boards .....	6
4-2.	Schematic Diagram .....	9
4-3.	IC Block Diagrams .....	12
4-4.	Semiconductor Lead Layouts .....	13
5.	EXPLODED VIEWS	
5-1.	Front Panel and Cabinet Assemblies .....	14
5-2.	Mechanism Deck Section1 (TCM-180VA-H3) (DECK A) (TCM-180VB-H3) (DECK B) .....	15
5-3.	Mechanism Deck Section2 (TCM-180VA-H3) (DECK A) (TCM-180VB-H3) (DECK B) .....	16
5-4.	Mechanism Deck Section3 (TCM-180VA-H3) (DECK A) (TCM-180VB-H3) (DECK B) .....	17
6.	ELECTRICAL PARTS LIST .....	18

### SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK OR DOTTED LINE WITH MARK ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

## SAFETY CHECK-OUT

(US model only)

After correcting the original service problem, perform the following safety checks before releasing the set to the customer: Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

### LEAKAGE

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

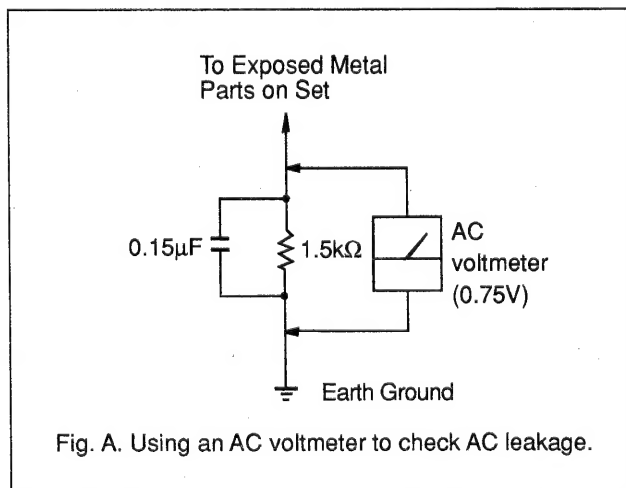


Fig. A. Using an AC voltmeter to check AC leakage.

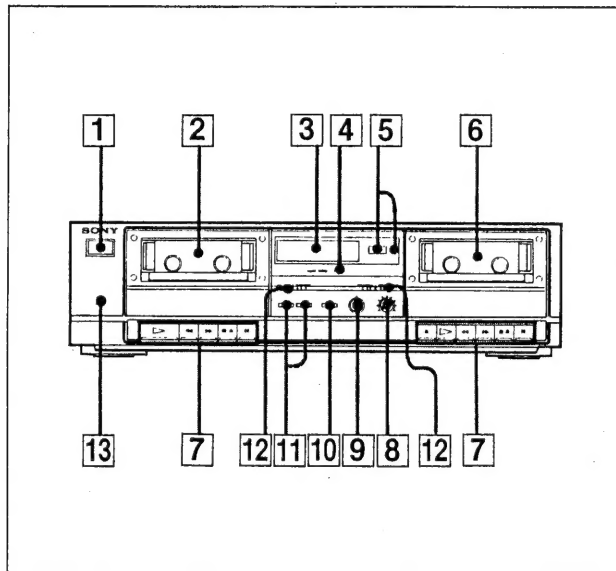
### ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

## SECTION 1 GENERAL

This section is extracted from  
instruction manual.

### Identification of Front Panel Parts



- 1** POWER switch
- 2** Cassette holder (deck A)
- 3** PEAK LEVEL METER
- 4** DUBBING SPEED and RECORD indicators
- 5** TAPE COUNTER and RESET button
- 6** Cassette holder (deck B)
- 7** Tape operation buttons
  - REC (record) button (deck B only)
  - ▷ (play) button
  - ◀◀ (rewinding) button
  - ▶▶ (fast-forward) button
  - ▲ (stop) and (eject) button
  - || PAUSE button
- 8** REC (recording) LEVEL control
- 9** BALANCE control
- 10** DUBBING SPEED button  
HIGH/NORMAL speed button
- 11** DOLBY NR (Dolby noise reduction) buttons
- 12** TAPE SELECT switches
- 13** HEADPHONES jack (stereo phone jack)

## SECTION 2

### MECHANICAL ADJUSTMENTS

#### PRECAUTION

- Clean the following parts with a denatured-alcohol-moistened swab:
 

record/playback head	pinch roller
erase head	rubber belts
capstan	idlers

#### Torque Measurement

Mode	Torque meter	Meter reading
FWD	CQ-102C	30 — 70 g • cm (0.42 — 0.97 oz • inch)
FWD Back tension	CQ-102RC	1.5 — 7 g • cm (0.020 — 0.096 oz • inch)
FF, REW	CQ-201B	63 g • cm or more (0.87 oz • inch or more)

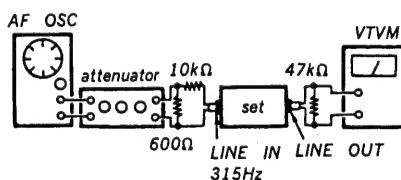
## SECTION 3

### ELECTRICAL ADJUSTMENTS

- Demagnetize the record/playback and erase head with a head demagnetizer.
  - Do not use a magnetized screwdriver for the adjustments.
  - After the adjustments, apply suitable locking compound to the parts adjusted.
  - The adjustments should be performed with the rated power supply voltage unless otherwise noted.
  - The adjustments should be performed in the order given in this service manual. (As a general rule, playback circuit adjustment should be completed before performing recording circuit adjustment.)
  - The adjustments should be performed for both L-CH and R-CH.
- Switches and controls should be set as follows unless otherwise specified.
 

DOLBY NR switch: OFF  
 TAPE select switch: TYPE 1 (NORMAL)  
 (DECK-B)

Mode: record



#### Standard Input Level

	LINE IN
source impedance	10kΩ
input level	0.25V (−10dB)

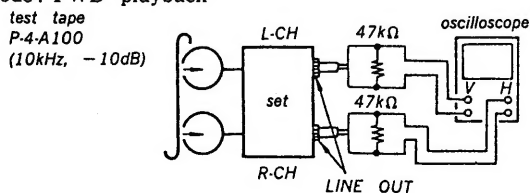
#### Standard Output Level

	LINE OUT
load impedance	47kΩ
output level	0.44V (−5dB)

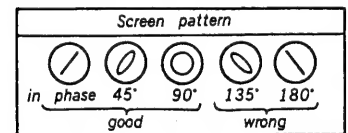
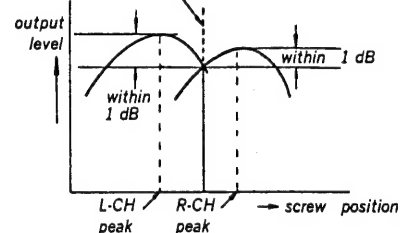
### RECORD/PLAYBACK HEAD AZIMUTH ADJUSTMENT DECK A/DECK B

#### Procedure:

- Mode: FWD playback

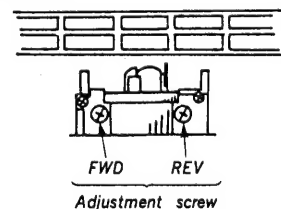


- Turn the adjustment screw and check output peaks. If the peaks do not match for L-CH and R-CH, turn the adjustment screw so that outputs match within 1 dB of peak.



- After the adjustments, apply suitable locking compound to the parts adjusted.

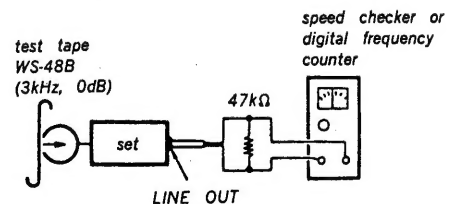
#### Adjustment Location:



### TAPE SPEED ADJUSTMENT DECK A/DECK B

#### Procedure:

Mode: FWD playback



- Connect pin to with the lead wire. (CNP505)

Measurement limit : high speed

Speed checker	Digital frequency counter
0 ± 0.3%	5960 ± 20Hz

Frequency difference between the beginning and the end of the tape should be within 1.5% (90Hz).

### Adjustment location :

DECK-A side RV501  
DECK-B side RV503

2. Remove the wire in step 1. (CNP505)

Measurement limit : normal speed

Speed checker	Digital frequency counter
$0 \pm 0.3\%$	$2,980 \pm 10\text{Hz}$

Frequency difference between the beginning and the end of the tape should be within 1.5% (45Hz).

### Adjustment location :

DECK-A side RV502  
DECK-B side RV504

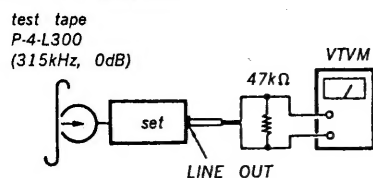
3. If the specifications are not satisfied, repeat step 1 and 2.

## PLAYBACK LEVEL ADJUSTMENT

### DECK A/DECK B

#### Procedure:

Mode : FWD playback



Adjust,

DECK-A side RV101 (L-CH), RV201 (R-CH)  
DECK-B side RV102 (L-CH), RV202 (R-CH)

so that the specifications are satisfied.

#### Measurement limit :

LINE OUT level : 0.44V (-5dB)

level difference between the channels : within 0.5dB

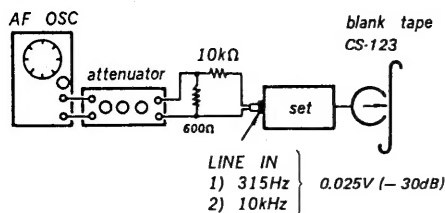
## RECORD BIAS ADJUSTMENT DECK B

#### Setting :

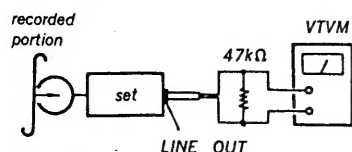
TAPE SELECT : TYPE-I (DECK-B)

#### Procedure:

1. Mode : record



2. Mode : playback



Playback the tape recorded in step 1. If the specification is not satisfied, adjust CT301 and repeat steps 1 and 2.

#### Measurement limit :

The LINE OUT level of 10kHz signal relative to that of 315Hz : -0.5dB to 0.5dB.

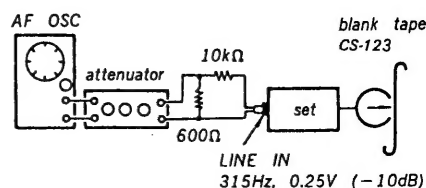
## RECORD GAIN ADJUSTMENT DECK B

#### Setting :

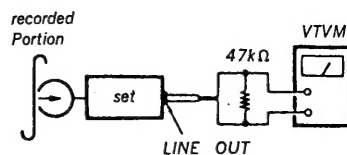
TAPE SELECT : TYPE-I (DECK-B)

#### Procedure:

1. Mode : record



2. Mode : playback



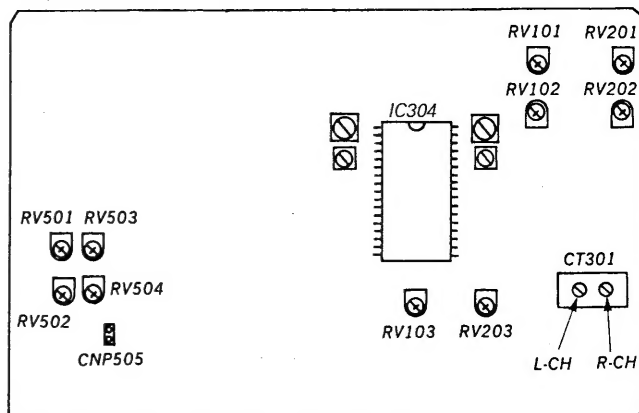
play back the recorded in step 1. If the specification is not satisfied, adjust RV103 (L-CH), RV203 (R-CH) and repeat steps 1 and 2.

#### Measurement limit :

LINE OUT level : 0.44V (-5dB)

#### Adjustment Location : Audio Board

Component side.





SECTION 4  
DIAGRAMS

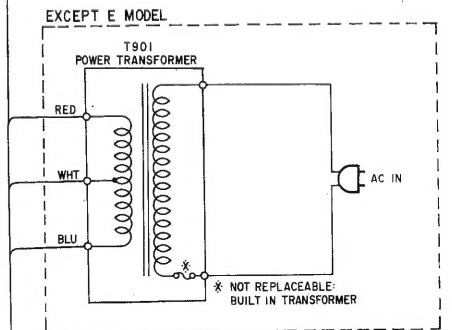
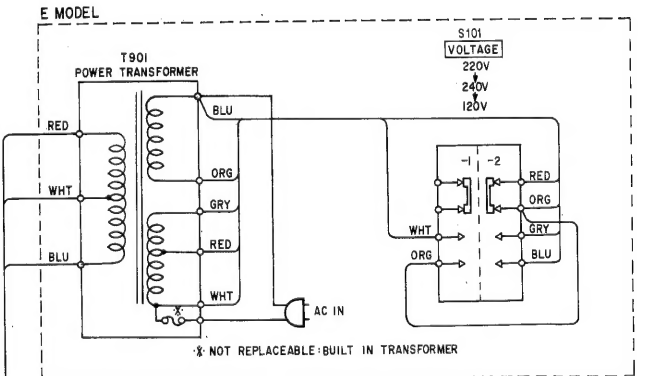
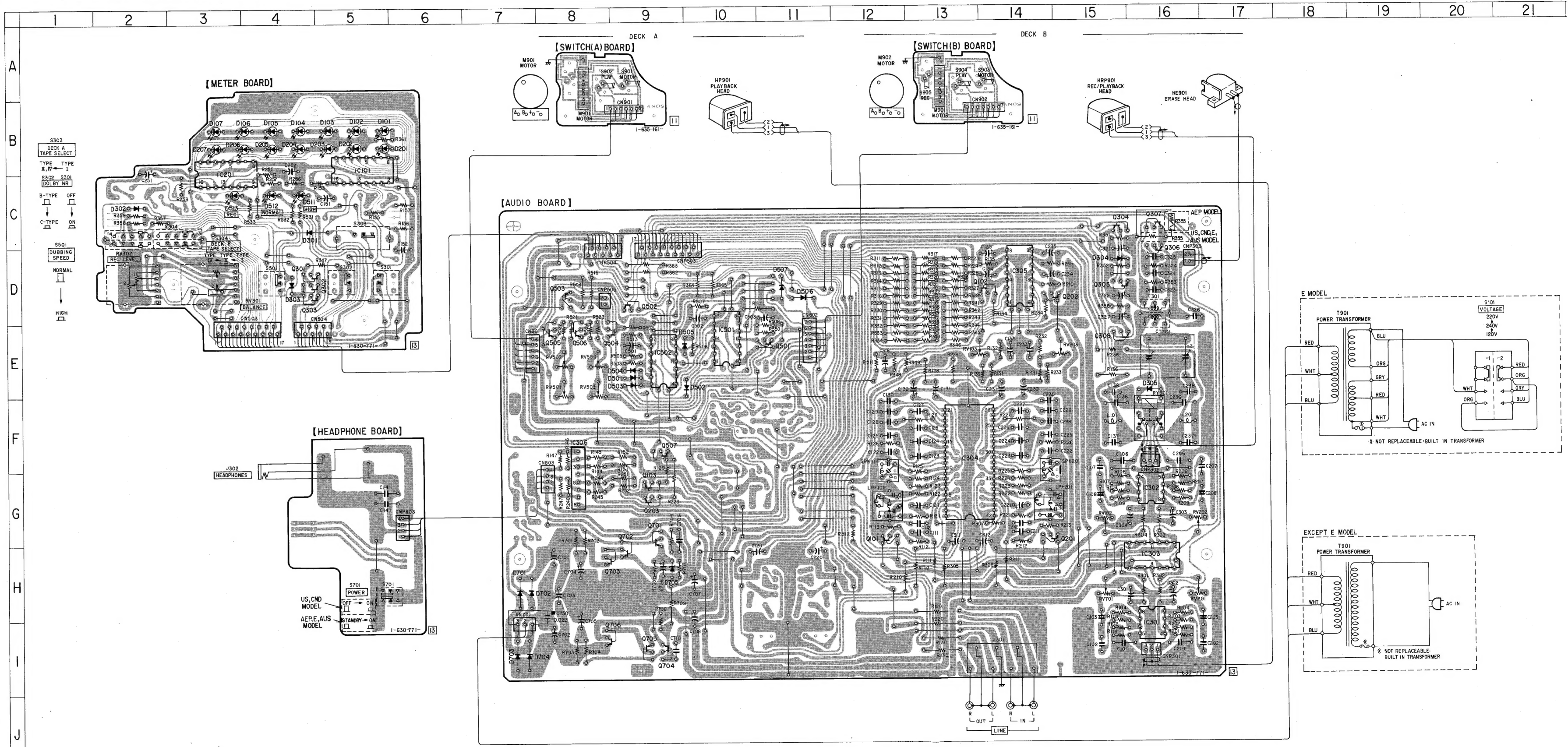
4-1. PRINTED WIRING BOARDS  
• See page 13 for Semiconductor Lead Layouts.

• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D101	B-5	IC101	B-5
D102	B-5	IC201	C-3
D103	B-5	IC301	I-16
D104	B-4	IC302	G-16
D105	B-4	IC303	H-16
D106	B-3	IC304	F-13
D107	B-3	IC305	D-14
D201	B-6	IC306	F-8
D202	B-5	IC501	E-10
D203	B-5	IC502	E-9
D204	B-4		
D205	B-4	Q101	G-12
D206	B-3	Q102	D-14
D207	B-3	Q103	G-9
D301	C-4	Q201	H-15
D302	C-3	Q202	D-15
D303	D-4	Q203	G-9
D304	D-15	Q301	D-4
D305	E-16	Q302	D-5
D501	E-9	Q303	D-4
D502	E-10	Q304	C-15
D503	E-9	Q305	D-15
D504	E-9	Q306	D-16
D505	E-10	Q307	C-16
D506	D-11	Q308	E-15
D507	D-11	Q501	E-11
D511	C-4	Q502	D-9
D512	C-4	Q503	D-8
D513	C-3	Q504	E-8
D701	H-7	Q505	E-8
D702	H-8	Q506	E-8
D703	I-7	Q507	F-9
D704	I-7	Q701	G-9
D705	H-9	Q702	G-9
		Q703	H-8
		Q704	I-9
		Q705	I-9
		Q706	I-8

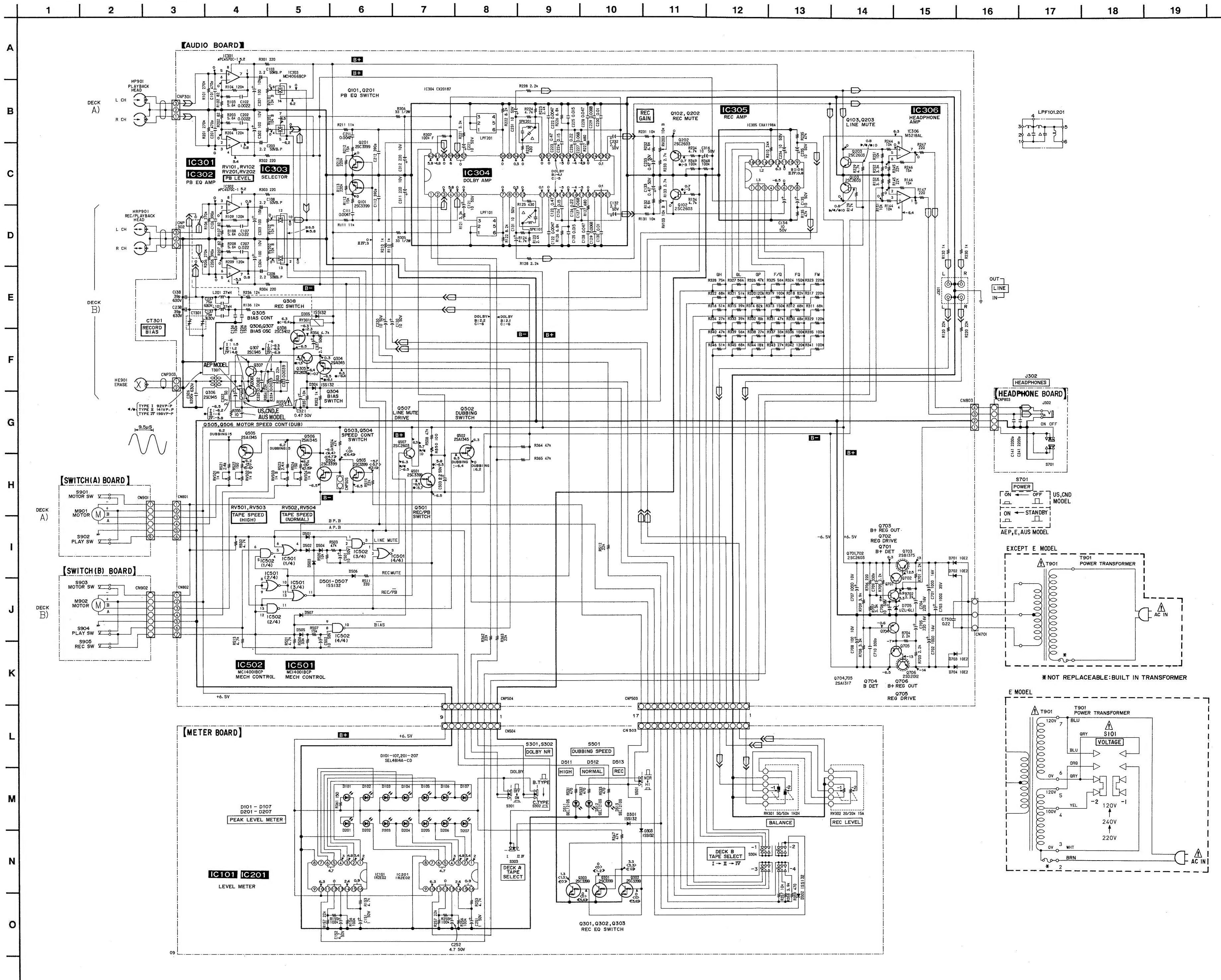
Note:

- : parts extracted from the component side.
- : parts mounted on the conductor side.
- : indicates side identified with part number.
- △ : internal component.
- ▨ : Pattern from the side which enable seeing.
- CND : Canadian model.
- AUS : Australian model.



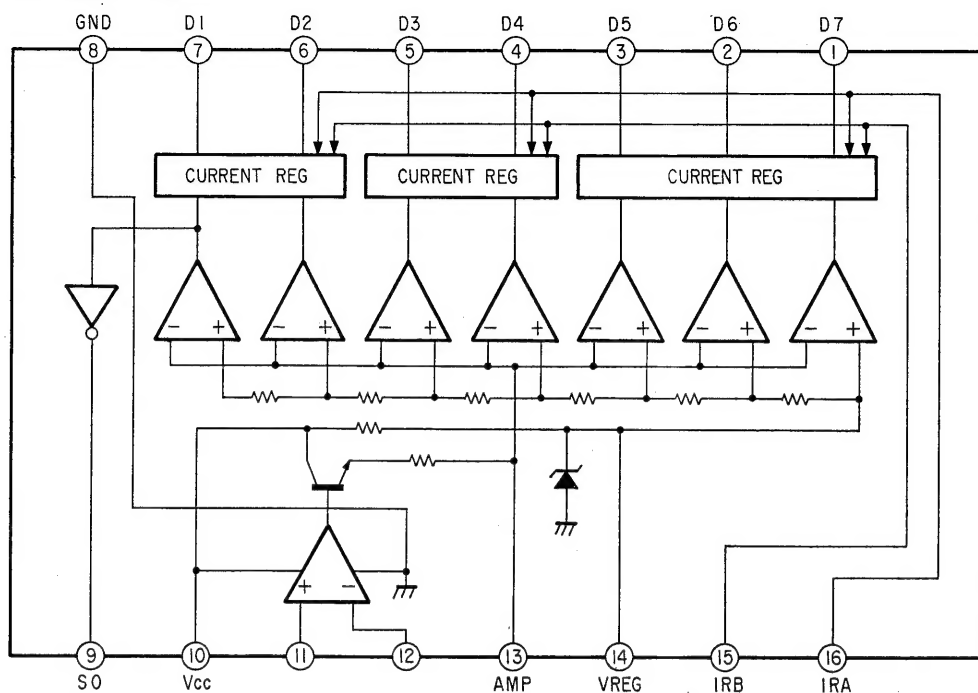


# 4-2. SCHEMATIC DIAGRAM • See page 12 for IC Block Diagrams.

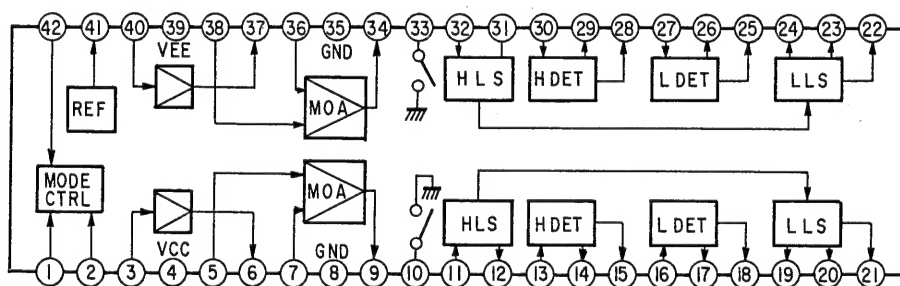


### 4-3. IC BLOCK DIAGRAMS

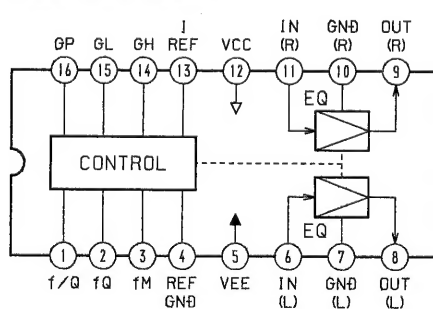
**IC101,201 1R2E02**



**IC304 CX20187**



**IC305 CXA1198AP**





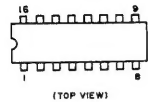
#### 4-4. SEMICONDUCTOR LEAD LAYOUTS

**CX20187**



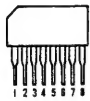
(Top view)

**CXA1198AP  
1R2E02**

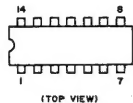


(TOP VIEW)

**M5218AL**

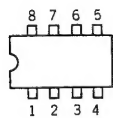


**MC14001BCP  
MC14066BCP  
UPC4011BC**



(TOP VIEW)

**UPC4570C-1**

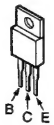


(Top view)

**DTA144ES  
DTC114ES  
DTC144ES  
2SA1317-STU  
2SC2603-EF**



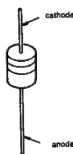
**2SB1094-LK  
2SD2012**



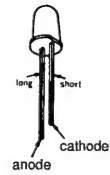
**2SC945-P**



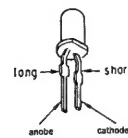
**HZS6A1L  
1SS202-1**



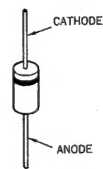
**SEL1210S-C**



**SEL4814A-CD**



**10E2N**



## SECTION 5 EXPLODED VIEWS

### NOTE:

- Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- Color Indication of Appearance Parts Example:  
KNOB, BALANCE (WHITE) . . . (RED)

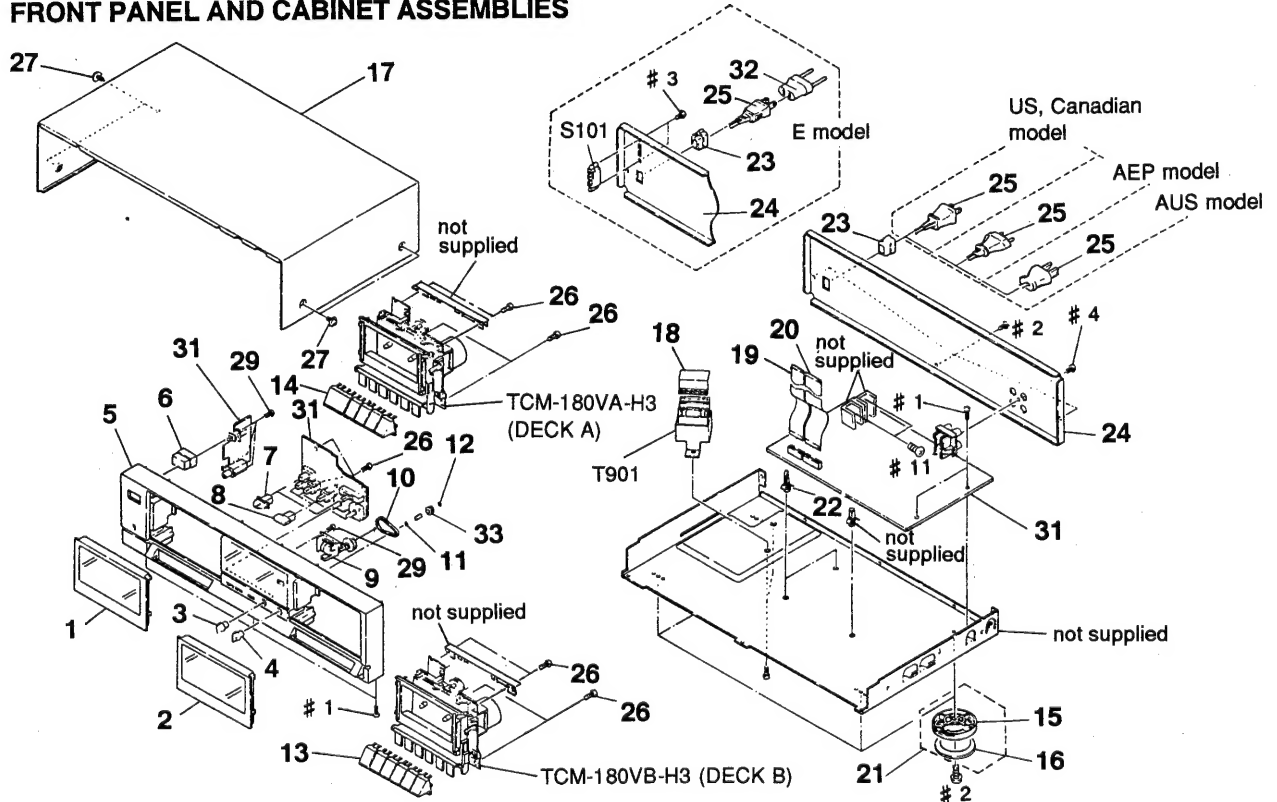
↑                      ↑  
Parts color    Cabinet's color

- -XX, -X mean standardized parts, so they may have some difference from the original one.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.
- CND : Canadian model
- AUS : Australian model

The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

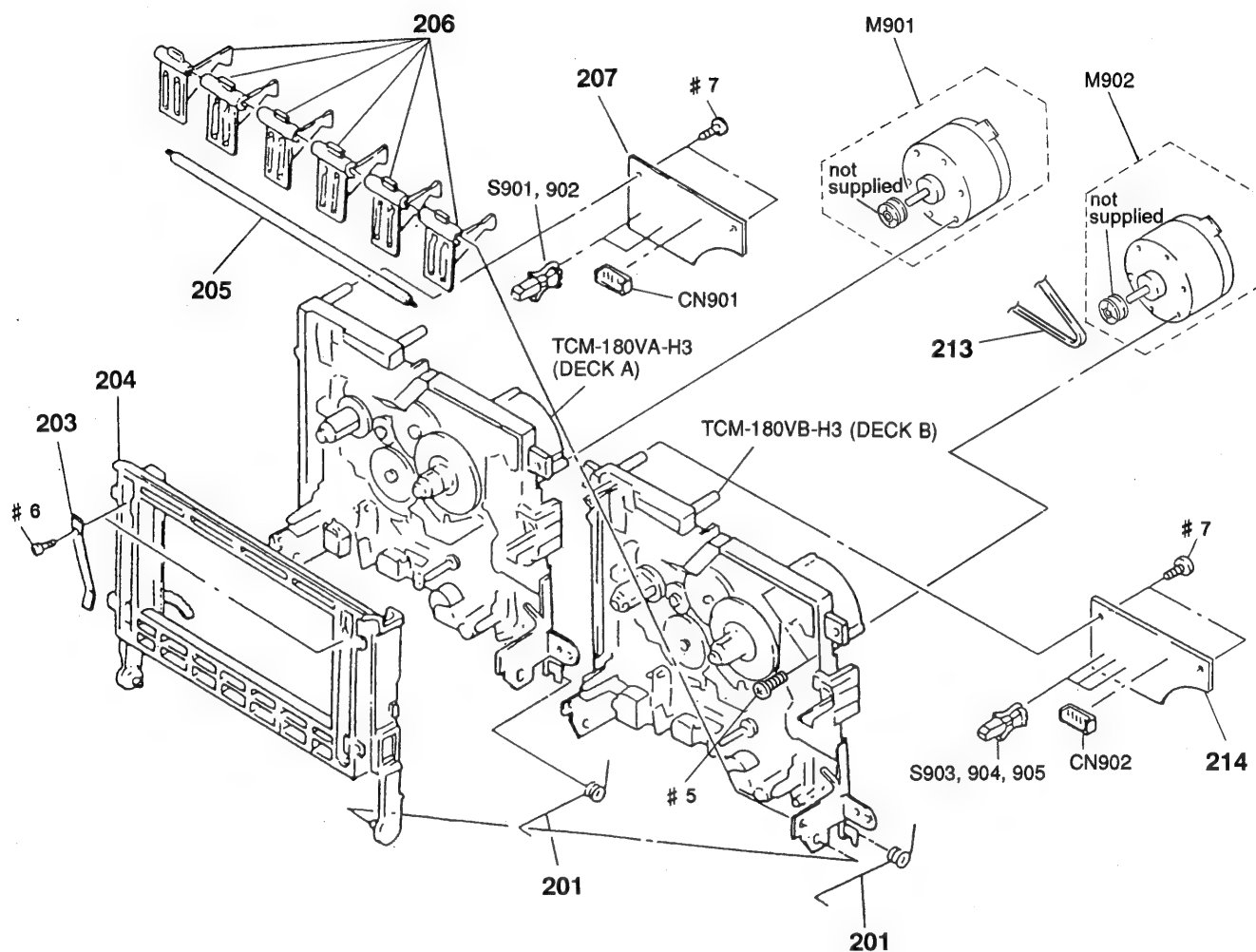
Les composants identifiés par une marque  $\Delta$  sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

### 5-1. FRONT PANEL AND CABINET ASSEMBLIES



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	X-3340-190-1	LID (A) ASSY, CASSETTE		* 23	3-703-244-00	BUSHING (2104), CORD (AEP, AUS)	
2	X-3340-189-1	LID (B) ASSY, CASSETTE		23	3-703-571-11	BUSHING (S) (4516), CORD (CND, E, US)	
3	3-346-380-01	KNOB (VOL)		* 24	3-908-833-01	PANEL, BACK (CND, US)	
4	3-346-380-21	KNOB (VOL)		* 24	3-908-833-22	PANEL, BACK (AEP)	
5	X-3367-853-1	PANEL ASSY, FRONT (CND, US)		* 24	3-908-833-31	PANEL, BACK (E)	
5	X-3367-854-1	PANEL ASSY, FRONT (AEP, AUS, E)		* 24	3-908-833-41	PANEL, BACK (AUS)	
6	4-917-460-01	KNOB, POWER		$\Delta$ 25	1-551-188-XX	CORD, POWER (E)	
7	3-346-379-01	KNOB (SLIDE)		$\Delta$ 25	1-555-750-00	CORD, POWER (AEP)	
8	3-346-381-01	BUTTON		$\Delta$ 25	1-558-945-21	CORD, POWER (POLAR. SPT-1) (CND, US)	
9	1-548-596-61	COUNTER, TAPE (MIDDLE TYPE)		$\Delta$ 25	1-696-966-21	CORD, POWER (AUS)	
10	3-499-042-XX	BELT, COUNTER		26	4-951-620-11	SCREW (2.6X10), +BVTP	
11	3-701-437-11	WASHER		27	3-704-366-01	SCREW (CASE) (M3X8)	
12	3-558-708-11	WASHER, STOPPER		29	4-951-620-01	SCREW (2.6X8), +BVTP	
13	3-349-043-11	BUTTON (BLOCK B)		* 31	A-2006-264-A	AUDIO BOARD, COMPLETE (AUS, CND, E, US) (Including HEADPHONE/METER BOARD)	
14	3-349-042-11	BUTTON (BLOCK A)		* 31	A-2006-619-A	AUDIO BOARD, COMPLETE (AEP) (Including HEADPHONE/METER BOARD)	
15	3-318-688-31	FOOT (F58175S) (AEP, AUS, E)		$\Delta$ 32	1-569-007-11	ADAPTER, CONVERSION 2P (E)	
15	3-318-688-51	FOOT (F58175S) (CND, US)		* 33	3-549-452-00	PULLEY, SHUT-OFF	
16	4-923-836-21	CUSHION		$\Delta$ S101	1-570-307-11	SELECTOR, POWER VOLTAGE (VOLTAGE) (E)	
* 17	4-943-088-31	CASE (AEP, AUS)		$\Delta$ T901	1-449-682-11	TRANSFORMER, POWER (E)	
* 18	3-327-855-01	COVER (TRANSFORMER)		$\Delta$ T901	1-449-683-11	TRANSFORMER, POWER (CND, US)	
* 19	1-574-727-11	WIRE, FLAT TYPE (9 CORE)		$\Delta$ T901	1-450-610-11	TRANSFORMER, POWER (AEP, AUS)	
* 20	1-574-725-11	WIRE, FLAT TYPE (17 CORE)					
21	X-4941-291-1	FOOT ASSY (F58175S) (CND, US)					
21	X-4941-292-1	FOOT ASSY (F58175S) (AEP, AUS, E)					
* 22	3-346-265-31	HOLDER, PC BOARD					

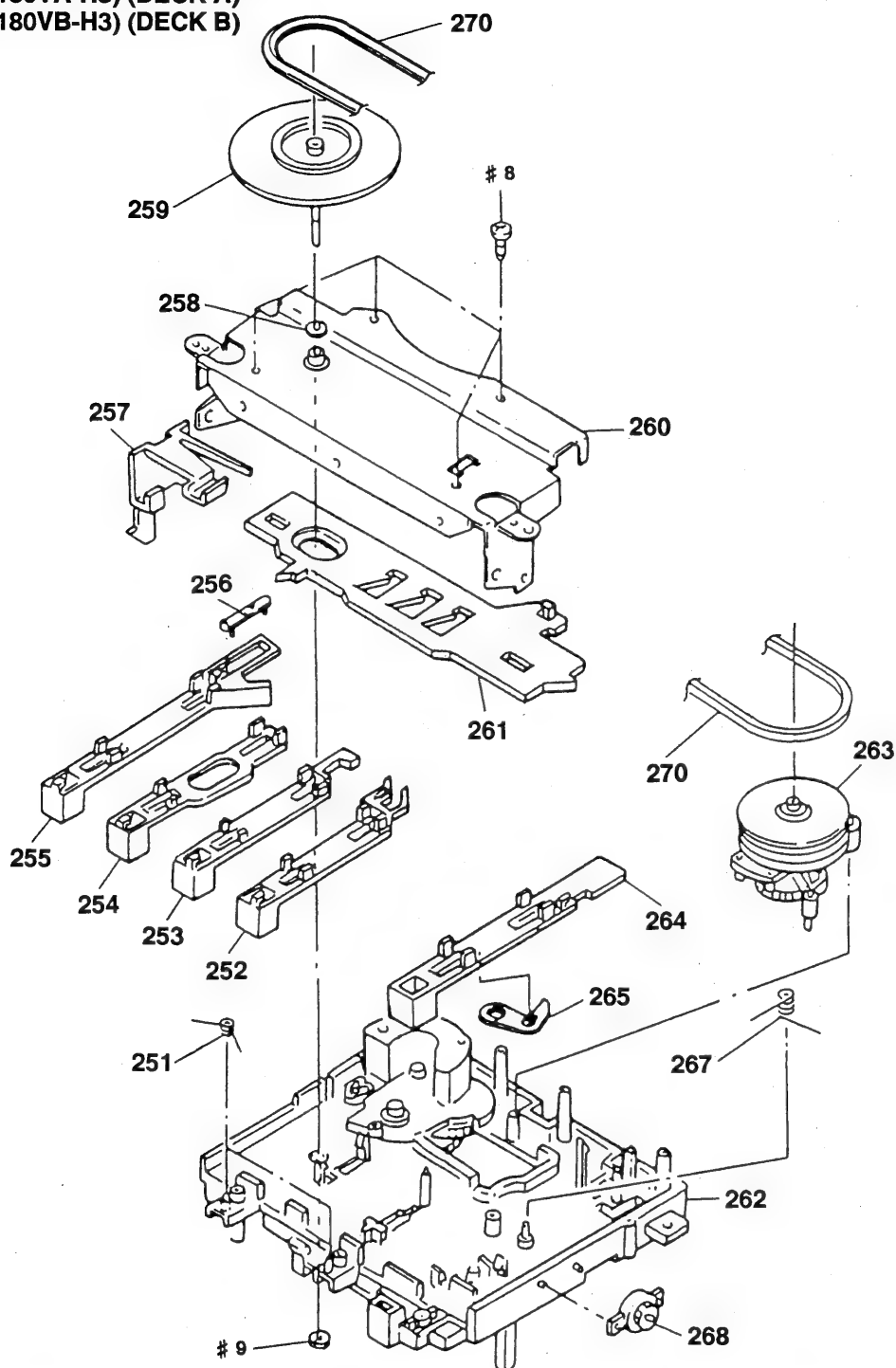
**5-2. MECHANISM DECK SECTION 1**  
**(TCM-180VA-H3) (DECK A)**  
**(TCM-180VB-H3) (DECK B)**



Ref. No.	Part No.	Description
201	3-358-287-01	SPRING (LOADING A), TORSION
203	3-358-209-01	SPRING (CASSETTE HOLDER), LEAF
204	3-358-266-02	HOLDER, CASSETTE
205	3-358-242-01	SHAFT (BUTTON SHAFT)
206	3-358-271-01	LEVER (BUTTON BASE A)
207	1-635-161-11	SWITCH (A) BOARD
213	3-358-272-01	BELT (A2)
214	1-635-161-11	SWITCH (B) BOARD
* CN901	1-564-499-11	PIN, CONNECTOR 6P

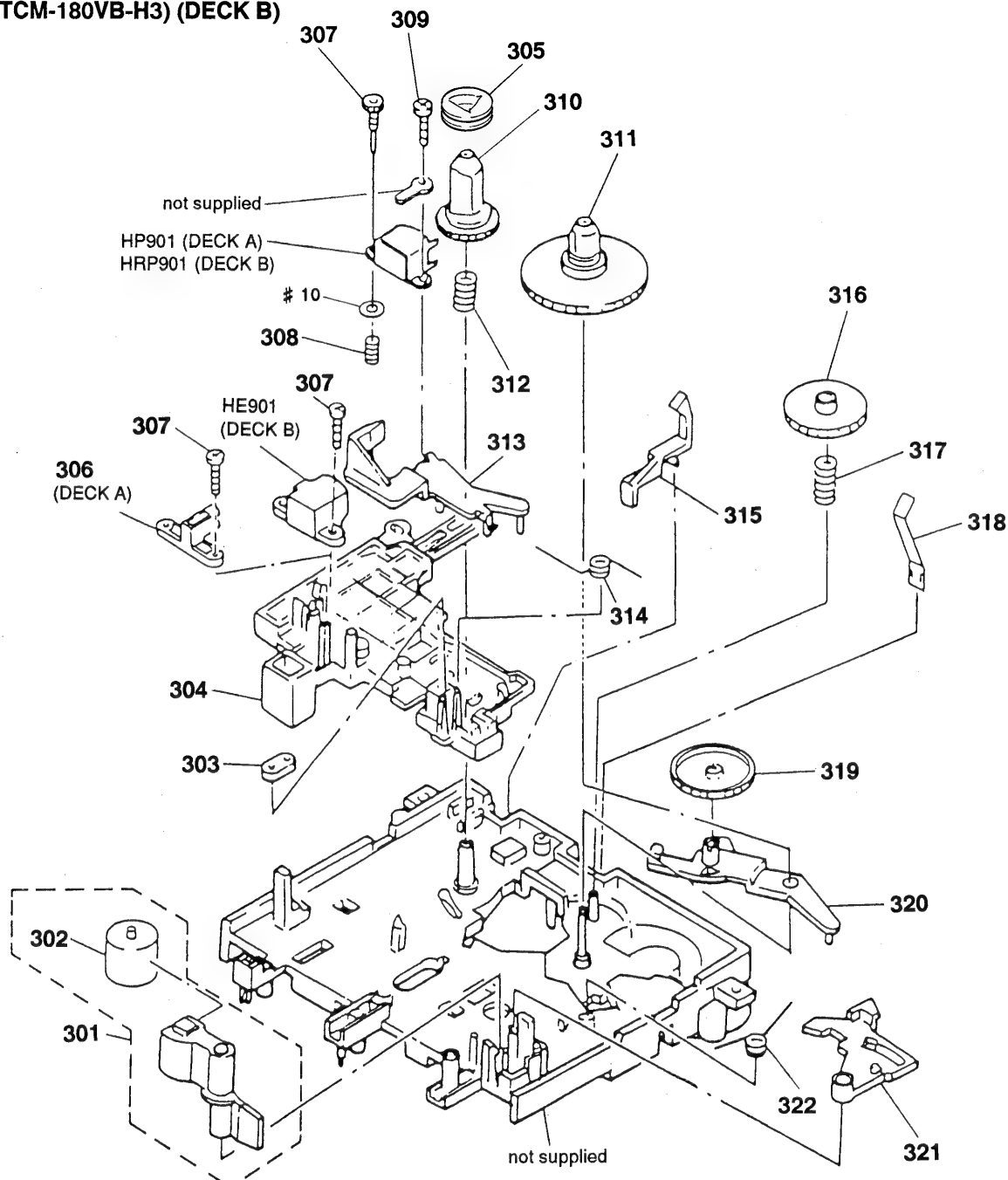
Ref. No.	Part No.	Description	Remark
* CN902	1-564-500-11	PIN, CONNECTOR 7P	
M901	X-3358-212-1	MOTOR (A) ASSY (DECK A)	
M902	X-3358-212-1	MOTOR (B) ASSY (DECK B)	
S901	1-571-736-11	SWITCH, LEAF (MOTOR)	
S902	1-571-736-11	SWITCH, LEAF (PLAY)	
S903	1-571-736-11	SWITCH, LEAF (MOTOR)	
S904	1-571-736-11	SWITCH, LEAF (PLAY)	
S905	1-571-736-11	SWITCH, LEAF (REC)	

**5-3. MECHANISM DECK SECTION 2**  
**(TCM-180VA-H3) (DECK A)**  
**(TCM-180VB-H3) (DECK B)**



Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
251	3-358-232-01	SPRING (S-P F-R), TORSION		* 261	3-358-249-01	SLIDER (LOCK PLATE)	
252	3-358-258-01	SLIDER (REW)		262	X-3358-207-2	CHASSIS (A) ASSY	
253	3-358-257-01	SLIDER (FF)		263	X-3358-202-1	LEVER (FR ARM) ASSY	
254	3-358-256-01	SLIDER (STOP/EJECT)		264	3-358-259-01	SLIDER (REC)	
255	3-358-260-01	SLIDER (PAUSE)		* 265	3-358-204-01	LEVER (REC SAFETY)	
* 256	3-358-226-01	LEVER (PAUSE LEVER)		267	3-358-214-01	SPRING (LOCK), TORSION (DECK A)	
* 257	3-358-261-02	SLIDER (HOLDER LOCK)		267	3-358-233-01	SPRING (REC-LOCK), TORSION (DECK B)	
258	3-701-437-01	WASHER		268	3-319-224-51	DAMPER, SMALL	
259	X-3358-205-1	FLYWHEEL (A) ASSY		270	3-358-230-01	BELT (A1)	
* 260	X-3358-213-1	BRACKET (A) ASSY					

**5-4. MECHANISM DECK SECTION 3**  
**(TCM-180VA-H3) (DECK A)**  
**(TCM-180VB-H3) (DECK B)**



Ref.No.	Part No.	Description
301	X-3358-204-1	LEVER (PINCH LEVER) ASSY
302	3-578-143-11	PINCH ROLLER
* 303	3-358-215-01	BUSHING (WIRE KIT RETAINER)
304	3-358-265-01	SLIDER (HEAD PC BOARD A)
* 305	3-358-270-01	PULLEY (COUNTER PULLEY)
* 306	3-363-931-01	GUIDE, TAPE
307	3-358-288-11	SCREW (T), AZIMUTH
308	3-358-234-01	SPRING (AZIMUTH), COMPRESSION
309	3-358-288-01	SCREW (T), AZIMUTH
310	3-358-248-01	GEAR (SUPPLY REEL)
311	X-3358-203-1	TABLE (T) ASSY, REEL
312	3-358-208-01	SPRING (SUPPLY), COMPRESSION
* 313	3-358-251-01	LEVER (TENSION DETECTION ARM)



Ref.No.	Part No.	Description
314	3-358-228-01	SPRING, TORSION
* 315	3-358-255-01	LEVER (GB LEVER)
* 316	3-358-224-01	GEAR (FF GEAR)
317	3-358-207-01	SPRING (FF GEAR), COMPRESSION
318	3-358-227-01	SPRING, LEAF
* 319	3-358-284-01	GEAR (TU GEAR)
* 320	3-358-252-01	LEVER (TU ARM)
* 321	3-358-253-01	LEVER (SHUT-OFF LEVER)
322	3-358-243-01	SPRING (TU-SHUT), TORSION
HE901	1-543-673-11	HEAD, MAGNETIC (ERASE) (DECK B)
HP901	1-543-319-11	HEAD, MAGNETIC (PB) (DECK A)
HRP901	1-543-319-11	HEAD, MAGNETIC (REC/PB) (DECK B)




## SECTION 6

## ELECTRICAL PARTS LIST


NOTE:


The components identified by mark  or dotted line with mark  are critical for safety.  
Replace only with part number specified.

Les composants identifiés par une  
marque  sont critiques pour la  
sécurité.  
Ne les remplacer que par une pièce  
portant le numéro spécifié.

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked “\*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts Example:  
 KNOB, BALANCE (WHITE) . . . (RED)  

  
 Parts color

  
 Cabinet's color
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.

- **SEMICONDUCTORS**  
In each case,  $\mu$  , for example:  
 $uA....: \mu A...., uPA....: \mu PA...., uPB....: \mu PB....,$   
 $uPC....: \mu PC...., uPD....: \mu PD....$
- **RESISTORS**  
All resistors are in ohms  
METAL: Metal-film resistor  
METAL OXIDE: Metal Oxide-film resistor  
F : nonflammable
- **CAPACITORS**  
 $uF : \mu F$
- **COILS**  
 $uH : \mu H$
- **CND** : Canadian model
- **AUS** : Australian model

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	A-2006-264-A	AUDIO BOARD, COMPLETE (US, CND, E, AUS)		C207	1-136-157-00	FILM	0.022uF 5% 50V
	*****						
*	A-2006-619-A	AUDIO BOARD, COMPLETE (AEP)		C208	1-124-767-00	ELECT	2.2uF 20% 50V
	*****			C211	1-130-479-00	MYLAR	0.0047uF 5% 50V
	(Including HEADPHONE/METER BOARD)			C212	1-162-289-31	CERAMIC	390PF 10% 50V
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3		C220	1-124-907-11	ELECT	10uF 20% 50V
	< CAPACITOR >			C221	1-124-907-11	ELECT	10uF 20% 50V
C101	1-162-290-31	CERAMIC	470PF 10% 50V	C222	1-130-479-00	MYLAR	0.0047uF 5% 50V
C102	1-136-157-00	FILM	0.022uF 5% 50V	C223	1-136-173-00	FILM	0.47uF 5% 50V
C103	1-124-767-00	ELECT	2.2uF 20% 50V	C224	1-136-167-00	FILM	0.15uF 5% 50V
C106	1-162-289-31	CERAMIC	390PF 10% 50V	C225	1-136-155-00	FILM	0.015uF 5% 50V
C107	1-136-157-00	FILM	0.022uF 5% 50V	C226	1-136-169-00	FILM	0.22uF 5% 50V
C108	1-124-767-00	ELECT	2.2uF 20% 50V	C227	1-136-163-00	FILM	0.068uF 5% 50V
C111	1-130-479-00	MYLAR	0.0047uF 5% 50V	C228	1-136-161-00	FILM	0.047uF 5% 50V
C112	1-162-289-31	CERAMIC	390PF 10% 50V	C229	1-130-481-00	MYLAR	0.0068uF 5% 50V
C120	1-124-907-11	ELECT	10uF 20% 50V	C230	1-136-153-00	FILM	0.01uF 5% 50V
C121	1-124-907-11	ELECT	10uF 20% 50V	C231	1-124-907-11	ELECT	10uF 20% 50V
C122	1-130-479-00	MYLAR	0.0047uF 5% 50V	C232	1-124-925-11	ELECT	2.2uF 20% 100V
C123	1-136-173-00	FILM	0.47uF 5% 50V	C233	1-124-902-00	ELECT	0.47uF 20% 50V
C124	1-136-167-00	FILM	0.15uF 5% 50V	C234	1-124-907-11	ELECT	10uF 20% 50V
C125	1-136-155-00	FILM	0.015uF 5% 50V	C235	1-124-907-11	ELECT	10uF 20% 50V
C126	1-136-169-00	FILM	0.22uF 5% 50V	C236	1-162-284-31	CERAMIC	150PF 10% 50V
C127	1-136-163-00	FILM	0.068uF 5% 50V	C237	1-136-273-91	FILM	75PF 5% 630V
C128	1-136-161-00	FILM	0.047uF 5% 50V	C238	1-136-440-11	FILM	39PF 5% 630V
C129	1-130-481-00	MYLAR	0.0068uF 5% 50V	C241	1-161-375-00	CERAMIC	0.0022uF 20% 50V
C130	1-136-153-00	FILM	0.01uF 5% 50V	C251	1-126-301-11	ELECT	1uF 20% 50V
C131	1-124-907-11	ELECT	10uF 20% 50V	C252	1-126-163-11	ELECT	4.7uF 20% 50V
C132	1-124-925-11	ELECT	2.2uF 20% 100V	C301	1-124-443-00	ELECT	100uF 20% 10V
C133	1-124-902-00	ELECT	0.47uF 20% 50V	C302	1-124-443-00	ELECT	100uF 20% 10V
C134	1-124-907-11	ELECT	10uF 20% 50V	C303	1-124-443-00	ELECT	100uF 20% 10V
C135	1-124-907-11	ELECT	10uF 20% 50V	C304	1-124-443-00	ELECT	100uF 20% 10V
C136	1-162-284-31	CERAMIC	150PF 10% 50V	C311	1-126-176-11	ELECT	220uF 20% 10V
C137	1-136-273-91	FILM	75PF 5% 630V	C312	1-126-176-11	ELECT	220uF 20% 10V
C138	1-136-440-11	FILM	39PF 5% 630V	C316	1-124-907-11	ELECT	10uF 20% 50V
C141	1-161-375-00	CERAMIC	0.0022uF 20% 50V	C321	1-124-902-00	ELECT	0.47uF 20% 50V
C151	1-126-301-11	ELECT	1uF 20% 50V	C322	1-124-925-11	ELECT	2.2uF 20% 100V
C152	1-126-163-11	ELECT	4.7uF 20% 50V	C323	1-130-478-00	MYLAR	0.0039uF 5% 50V
C201	1-162-290-31	CERAMIC	470PF 10% 50V	C324	1-130-478-00	MYLAR	0.0039uF 5% 50V
C202	1-136-157-00	FILM	0.022uF 5% 50V	C325	1-130-482-00	MYLAR	0.0082uF 5% 50V
C203	1-124-767-00	ELECT	2.2uF 20% 50V	C326	1-136-562-11	FILM	0.0082uF 5% 63

## AUDIO

## HEADPHONE

## METER

Ref. No.	Part No.	Description			Remark
C503	1-124-925-11	ELECT	2. 2uF	20%	100V
C701	1-124-360-00	ELECT	1000uF	20%	16V
C702	1-124-360-00	ELECT	1000uF	20%	16V
C703	1-126-105-11	ELECT	1000uF	20%	35V
C704	1-124-120-11	ELECT	220uF	20%	25V
C705	1-124-120-11	ELECT	220uF	20%	25V
C706	1-124-907-11	ELECT	10uF	20%	50V
C707	1-124-473-11	ELECT	1000uF	20%	10V
C708	1-124-443-00	ELECT	100uF	20%	10V
C709	1-162-288-31	CERAMIC	330PF	10%	50V
C710	1-162-288-31	CERAMIC	330PF	10%	50V
C750	1-136-157-00	FILM	0. 022uF	5%	50V(AEP)

## &lt; CONNECTOR &gt;

CN503	1-568-438-11	SOCKET, CONNECTOR 17P
CN504	1-568-441-11	SOCKET, CONNECTOR 9P
* CNP301	1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P
* CNP302	1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P
* CNP303	1-564-704-11	PIN, CONNECTOR (SMALL TYPE) 2P

CNP503	1-568-440-11	SOCKET, CONNECTOR 17P
CNP504	1-568-442-11	SOCKET, CONNECTOR 9P
* CNP505	1-564-704-11	PIN, CONNECTOR (SMALL TYPE) 2P
* CNP803	1-564-497-11	PIN, CONNECTOR 4P

## &lt; TRIMMER &gt;

CT301	1-141-225-00	CAP, TUNING, TRIMAR
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## &lt; DIODE &gt;

D101	8-719-312-65	LED SEL4814A-CD
D102	8-719-312-65	LED SEL4814A-CD
D103	8-719-312-65	LED SEL4814A-CD
D104	8-719-312-65	LED SEL4814A-CD
D105	8-719-312-65	LED SEL4814A-CD

D106	8-719-312-65	LED SEL4814A-CD
D107	8-719-312-65	LED SEL4814A-CD
D201	8-719-312-65	LED SEL4814A-CD
D202	8-719-312-65	LED SEL4814A-CD
D203	8-719-312-65	LED SEL4814A-CD

D204	8-719-312-65	LED SEL4814A-CD
D205	8-719-312-65	LED SEL4814A-CD
D206	8-719-312-65	LED SEL4814A-CD
D207	8-719-312-65	LED SEL4814A-CD
D301	8-719-107-94	DIODE 1SS202-1

D302	8-719-107-94	DIODE 1SS202-1
D303	8-719-107-94	DIODE 1SS202-1
D304	8-719-107-94	DIODE 1SS202-1
D305	8-719-107-94	DIODE 1SS202-1
D501	8-719-107-94	DIODE 1SS202-1

D502	8-719-107-94	DIODE 1SS202-1
D503	8-719-107-94	DIODE 1SS202-1

Ref. No.	Part No.	Description	Remark
D504	8-719-107-94	DIODE 1SS202-1	
D505	8-719-107-94	DIODE 1SS202-1	
D506	8-719-107-94	DIODE 1SS202-1	
D507	8-719-107-94	DIODE 1SS202-1	
D511	8-719-302-46	LED SEL1210S-C (HIGH)	
D512	8-719-302-46	LED SEL1210S-C (NORMAL)	
D513	8-719-302-46	LED SEL1210S-C (REC)	
D701	8-719-200-77	DIODE 10E2N	
D702	8-719-200-77	DIODE 10E2N	
D703	8-719-200-77	DIODE 10E2N	
D704	8-719-200-77	DIODE 10E2N	
D705	8-719-933-33	DIODE HZS6A1L	

## &lt; IC &gt;

IC101	8-759-912-79	IC IR2E02
IC201	8-759-912-79	IC IR2E02
IC301	8-759-111-44	IC UPC4570C-1
IC302	8-759-111-44	IC UPC4570C-1
IC303	8-759-000-49	IC MC14066BCP

IC304	8-752-018-70	IC CX20187
IC305	8-752-060-64	IC CXA1198AP
IC306	8-759-634-50	IC M5218AL
IC501	8-759-040-01	IC MC14001BCP
IC502	8-759-140-11	IC UPD4011BC

## &lt; JACK &gt;

J301	1-565-258-11	JACK, PIN 4P (LINE)
J302	1-507-796-71	JACK, LARGE TYPE (HEADPHONES)

## &lt; COIL &gt;

L101	1-410-780-11	INDUCTOR 27mH
L201	1-410-780-11	INDUCTOR 27mH

## &lt; FILTER &gt;

LPF101	1-236-087-11	FILTER, LOW PASS
LPF201	1-236-087-11	FILTER, LOW PASS

## &lt; TRANSISTOR &gt;

Q101	8-729-900-89	TRANSISTOR DTC144ES
Q102	8-729-620-05	TRANSISTOR 2SC2603-EF
Q103	8-729-620-05	TRANSISTOR 2SC2603-EF
Q201	8-729-900-89	TRANSISTOR DTC144ES
Q202	8-729-620-05	TRANSISTOR 2SC2603-EF

Q203	8-729-620-05	TRANSISTOR 2SC2603-EF
Q301	8-729-900-89	TRANSISTOR DTC144ES
Q302	8-729-900-89	TRANSISTOR DTC144ES
Q303	8-729-900-89	TRANSISTOR DTC144ES
Q304	8-729-900-65	TRANSISTOR DTA144ES

Q305	8-729-620-05	TRANSISTOR 2SC2603-EF
Q306	8-729-194-57	TRANSISTOR 2SC945-P

# AUDIO HEADPHONE METER

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
Q307	8-729-194-57	TRANSISTOR	2SC945-P	R151	1-249-429-11	CARBON	10K 5% 1/4W
Q308	8-729-900-80	TRANSISTOR	DTC114ES	R152	1-249-423-11	CARBON	3.3K 5% 1/4W F
Q501	8-729-900-89	TRANSISTOR	DTC144ES				
Q502	8-729-900-65	TRANSISTOR	DTA144ES	R153	1-247-840-00	CARBON	2.4K 5% 1/4W
Q503	8-729-900-89	TRANSISTOR	DTC144ES	R155	1-249-441-11	CARBON	100K 5% 1/4W
Q504	8-729-900-89	TRANSISTOR	DTC144ES	R156	1-249-441-11	CARBON	100K 5% 1/4W
Q505	8-729-900-65	TRANSISTOR	DTA144ES	R157	1-249-433-11	CARBON	22K 5% 1/4W
Q506	8-729-900-65	TRANSISTOR	DTA144ES	R201	1-247-889-00	CARBON	270K 5% 1/4W
Q507	8-729-620-05	TRANSISTOR	2SC2603-EF				
Q701	8-729-620-05	TRANSISTOR	2SC2603-EF	R202	1-249-404-00	CARBON	82 5% 1/4W
Q702	8-729-620-05	TRANSISTOR	2SC2603-EF	R203	1-249-426-11	CARBON	5.6K 5% 1/4W
Q703	8-729-141-83	TRANSISTOR	2SB1094-LK	R204	1-247-881-00	CARBON	120K 5% 1/4W
Q704	8-729-821-04	TRANSISTOR	2SA1317-STU	R206	1-247-889-00	CARBON	270K 5% 1/4W
Q705	8-729-821-04	TRANSISTOR	2SA1317-STU	R207	1-249-404-00	CARBON	82 5% 1/4W
Q706	8-729-209-15	TRANSISTOR	2SD2012				
< RESISTOR >				R208	1-249-426-11	CARBON	5.6K 5% 1/4W
R101	1-247-889-00	CARBON	270K 5% 1/4W	R209	1-247-881-00	CARBON	120K 5% 1/4W
R102	1-249-404-00	CARBON	82 5% 1/4W	R210	1-249-417-11	CARBON	1K 5% 1/4W F
R103	1-249-426-11	CARBON	5.6K 5% 1/4W	R211	1-247-856-00	CARBON	11K 5% 1/4W
R104	1-247-881-00	CARBON	120K 5% 1/4W	R212	1-249-431-11	CARBON	15K 5% 1/4W
R106	1-247-889-00	CARBON	270K 5% 1/4W				
R107	1-249-404-00	CARBON	82 5% 1/4W	R213	1-247-887-00	CARBON	220K 5% 1/4W
R108	1-249-426-11	CARBON	5.6K 5% 1/4W	R220	1-249-433-11	CARBON	22K 5% 1/4W
R109	1-247-881-00	CARBON	120K 5% 1/4W	R221	1-249-423-11	CARBON	3.3K 5% 1/4W F
R110	1-249-417-11	CARBON	1K 5% 1/4W F	R222	1-249-428-11	CARBON	8.2K 5% 1/4W F
R111	1-247-856-00	CARBON	11K 5% 1/4W	R223	1-247-840-00	CARBON	2.4K 5% 1/4W
R112	1-249-431-11	CARBON	15K 5% 1/4W				
R113	1-247-887-00	CARBON	220K 5% 1/4W	R224	1-249-425-11	CARBON	4.7K 5% 1/4W F
R120	1-249-433-11	CARBON	22K 5% 1/4W	R225	1-247-822-11	CARBON	430 5% 1/4W
R121	1-249-423-11	CARBON	3.3K 5% 1/4W F	R226	1-249-427-11	CARBON	6.8K 5% 1/4W F
R122	1-249-428-11	CARBON	8.2K 5% 1/4W F	R227	1-249-415-11	CARBON	680 5% 1/4W F
R123	1-247-840-00	CARBON	2.4K 5% 1/4W	R228	1-249-421-11	CARBON	2.2K 5% 1/4W F
R124	1-249-425-11	CARBON	4.7K 5% 1/4W F				
R125	1-247-822-11	CARBON	430 5% 1/4W	R229	1-249-425-11	CARBON	4.7K 5% 1/4W F
R126	1-249-427-11	CARBON	6.8K 5% 1/4W F	R230	1-249-417-11	CARBON	1K 5% 1/4W F
R127	1-249-415-11	CARBON	680 5% 1/4W F	R231	1-249-429-11	CARBON	10K 5% 1/4W
R128	1-249-421-11	CARBON	2.2K 5% 1/4W F	R232	1-249-427-11	CARBON	6.8K 5% 1/4W F
R129	1-249-425-11	CARBON	4.7K 5% 1/4W F	R233	1-249-422-11	CARBON	2.7K 5% 1/4W F
R130	1-249-417-11	CARBON	1K 5% 1/4W F				
R131	1-249-429-11	CARBON	10K 5% 1/4W	R234	1-249-425-11	CARBON	4.7K 5% 1/4W F
R132	1-249-427-11	CARBON	6.8K 5% 1/4W F	R235	1-249-437-11	CARBON	47K 5% 1/4W
R133	1-249-422-11	CARBON	2.7K 5% 1/4W F	R236	1-249-430-11	CARBON	12K 5% 1/4W
R134	1-249-425-11	CARBON	4.7K 5% 1/4W F	R244	1-249-429-11	CARBON	10K 5% 1/4W
R135	1-249-437-11	CARBON	47K 5% 1/4W	R245	1-249-433-11	CARBON	22K 5% 1/4W
R136	1-249-430-11	CARBON	12K 5% 1/4W				
R144	1-249-429-11	CARBON	10K 5% 1/4W	R246	1-249-431-11	CARBON	15K 5% 1/4W
R145	1-249-433-11	CARBON	22K 5% 1/4W	R247	1-249-409-11	CARBON	220 5% 1/4W F
R146	1-249-431-11	CARBON	15K 5% 1/4W	R251	1-249-429-11	CARBON	10K 5% 1/4W
R147	1-249-409-11	CARBON	220 5% 1/4W F	R252	1-249-423-11	CARBON	3.3K 5% 1/4W F
				R253	1-247-840-00	CARBON	2.4K 5% 1/4W
				R255	1-249-441-11	CARBON	100K 5% 1/4W
				R256	1-249-441-11	CARBON	100K 5% 1/4W
				R257	1-249-433-11	CARBON	22K 5% 1/4W
				R301	1-249-409-11	CARBON	220 5% 1/4W F
				R302	1-249-409-11	CARBON	220 5% 1/4W F
				R303	1-249-409-11	CARBON	220 5% 1/4W F
				R304	1-249-409-11	CARBON	220 5% 1/4W F
				R305	1-247-733-11	CARBON	33 5% 1/2W

# AUDIO

# HEADPHONE

# METER

Ref. No.	Part No.	Description	Remark
R306	1-247-733-11	CARBON 33 5% 1/2W	
R307	1-215-469-00	METAL 100K 1% 1/6W	
R310	1-247-864-11	CARBON 24K 5% 1/4W	
R311	1-249-439-11	CARBON 68K 5% 1/4W	
R312	1-249-439-11	CARBON 68K 5% 1/4W	
R313	1-247-883-00	CARBON 150K 5% 1/4W	
R314	1-249-440-11	CARBON 82K 5% 1/4W	
R315	1-249-436-11	CARBON 39K 5% 1/4W	
R316	1-247-872-11	CARBON 51K 5% 1/4W	
R317	1-247-887-00	CARBON 220K 5% 1/4W	
R318	1-249-440-11	CARBON 82K 5% 1/4W	
R319	1-249-441-11	CARBON 100K 5% 1/4W	
R320	1-247-881-00	CARBON 120K 5% 1/4W	
R321	1-247-872-11	CARBON 51K 5% 1/4W	
R322	1-249-439-11	CARBON 68K 5% 1/4W	
R323	1-247-887-00	CARBON 220K 5% 1/4W	
R324	1-247-883-00	CARBON 150K 5% 1/4W	
R325	1-249-438-11	CARBON 56K 5% 1/4W	
R326	1-249-437-11	CARBON 47K 5% 1/4W	
R327	1-249-438-11	CARBON 56K 5% 1/4W	
R328	1-247-876-11	CARBON 75K 5% 1/4W	
R329	1-247-881-00	CARBON 120K 5% 1/4W	
R330	1-249-439-11	CARBON 68K 5% 1/4W	
R331	1-249-437-11	CARBON 47K 5% 1/4W	
R332	1-249-432-11	CARBON 18K 5% 1/4W	
R333	1-249-436-11	CARBON 39K 5% 1/4W	
R334	1-249-434-11	CARBON 27K 5% 1/4W	
R335	1-249-441-11	CARBON 100K 5% 1/4W	
R336	1-249-441-11	CARBON 100K 5% 1/4W	
R337	1-249-435-11	CARBON 33K 5% 1/4W	
R338	1-249-434-11	CARBON 27K 5% 1/4W	
R339	1-249-438-11	CARBON 56K 5% 1/4W	
R340	1-249-437-11	CARBON 47K 5% 1/4W	
R341	1-249-441-11	CARBON 100K 5% 1/4W	
R342	1-247-881-00	CARBON 120K 5% 1/4W	
R343	1-249-434-11	CARBON 27K 5% 1/4W	
R344	1-249-432-11	CARBON 18K 5% 1/4W	
R345	1-249-439-11	CARBON 68K 5% 1/4W	
R346	1-247-872-11	CARBON 51K 5% 1/4W	
R347	1-249-437-11	CARBON 47K 5% 1/4W	
R348	1-249-441-11	CARBON 100K 5% 1/4W	
R349	1-249-441-11	CARBON 100K 5% 1/4W	
R351	1-249-429-11	CARBON 10K 5% 1/4W	
R352	1-249-417-11	CARBON 1K 5% 1/4W F	
R353	1-249-433-11	CARBON 22K 5% 1/4W	
R354	1-249-433-11	CARBON 22K 5% 1/4W	
△R355	1-219-153-11	FUSIBLE 10 5% 1/4W F (AEP)	
R355	1-249-393-11	CARBON 10 5% 1/4W F (US, CND, E, AUS)	
R356	1-249-425-11	CARBON 4.7K 5% 1/4W F	

Ref. No.	Part No.	Description	Remark
R357	1-249-429-11	CARBON 10K 5% 1/4W	
R358	1-249-424-11	CARBON 3.9K 5% 1/4W F	
R359	1-249-413-11	CARBON 470 5% 1/4W F	
R361	1-247-811-31	CARBON 150 5% 1/4W	
R362	1-249-433-11	CARBON 22K 5% 1/4W	
R363	1-249-433-11	CARBON 22K 5% 1/4W	
R364	1-249-437-11	CARBON 47K 5% 1/4W	
R365	1-249-437-11	CARBON 47K 5% 1/4W	
R501	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R502	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R503	1-249-437-11	CARBON 47K 5% 1/4W	
R504	1-249-437-11	CARBON 47K 5% 1/4W	
R505	1-249-429-11	CARBON 10K 5% 1/4W	
R506	1-249-435-11	CARBON 33K 5% 1/4W	
R507	1-249-431-11	CARBON 15K 5% 1/4W	
R508	1-249-437-11	CARBON 47K 5% 1/4W	
R511	1-249-409-11	CARBON 220 5% 1/4W F	
R512	1-249-433-11	CARBON 22K 5% 1/4W	
R513	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R515	1-249-433-11	CARBON 22K 5% 1/4W	
R521	1-247-840-00	CARBON 2.4K 5% 1/4W	
R522	1-247-811-31	CARBON 150 5% 1/4W	
R523	1-247-840-00	CARBON 2.4K 5% 1/4W	
R524	1-247-811-31	CARBON 150 5% 1/4W	
R531	1-249-413-11	CARBON 470 5% 1/4W F	
R532	1-249-413-11	CARBON 470 5% 1/4W F	
R533	1-249-413-11	CARBON 470 5% 1/4W F	
R550	1-247-807-31	CARBON 100 5% 1/4W	
R701	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R702	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R703	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R704	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R705	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R706	1-249-409-11	CARBON 220 5% 1/4W F	
R707	1-249-423-11	CARBON 3.3K 5% 1/4W F	
R708	1-249-423-11	CARBON 3.3K 5% 1/4W F	
R709	1-249-424-11	CARBON 3.9K 5% 1/4W F	
< VARIABLE RESISTOR >			
RV101	1-228-994-00	RES, ADJ, METAL 10K	
RV102	1-228-994-00	RES, ADJ, METAL 10K	
RV103	1-228-994-00	RES, ADJ, METAL 10K	
RV201	1-228-994-00	RES, ADJ, METAL 10K	
RV202	1-228-994-00	RES, ADJ, METAL 10K	
RV203	1-228-994-00	RES, ADJ, METAL 10K	
RV301	1-238-683-11	RES, VAR, CARBON 50K/50K (BALANCE)	
RV302	1-238-534-11	RES, VAR, CARBON 20K/20K (REC LEVEL)	
RV501	1-228-990-00	RES, ADJ, METAL 1K	
RV502	1-228-990-00	RES, ADJ, METAL 1K	
RV503	1-228-990-00	RES, ADJ, METAL 1K	

The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

## AUDIO

## HEADPHONE

## METER

## SWITCH (A)

## SWITCH (B)

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
RV504	1-228-990-00	RES, ADJ, METAL 1K		S905	1-571-736-11	SWITCH, LEAF (REC)	
		< RELAY >		*****			
RY301	1-515-614-11	RELAY				MISCELLANEOUS	
		< SWITCH >				*****	
S301	1-571-510-11	SWITCH, PUSH (1 KEY) (DOLBY NR)		9	1-548-596-61	COUNTER, TAPE (MIDDLE TYPE)	
S302	1-571-510-11	SWITCH, PUSH (1 KEY) (DOLBY NR)		* 19	1-574-727-11	WIRE, FLAT TYPE (9 CORE)	
S303	1-570-974-11	SWITCH, SLIDE (DECK A TAPE SELECT)		* 20	1-574-725-11	WIRE, FLAT TYPE (17 CORE)	
S304	1-571-628-11	SWITCH, SLIDE (DECK B TAPE SELECT)		△25	1-551-188-XX	CORD, POWER (E)	
S501	1-571-510-11	SWITCH, PUSH (1 KEY) (DUBBING SPEED)		△25	1-555-750-00	CORD, POWER (AEP)	
S701	1-570-393-21	SWITCH, PUSH (1 KEY) (POWER)		△25	1-558-945-21	CORD, POWER (POLAR. SPT-1) (CND, US)	
		< ENCAPSULATED COMPONENT >		△25	1-696-966-21	CORD, POWER (AUS)	
SPK101	1-235-186-00	ENCAPSULATED COMPONENT		△32	1-569-007-11	ADAPTER, CONVERSION 2P (E)	
SPK201	1-235-186-00	ENCAPSULATED COMPONENT		215	1-541-753-11	MOTOR, DC (BG-530KD-2B)	
		< TRANSFORMER >		* CN901	1-564-499-11	PIN, CONNECTOR 6P	
T301	1-433-303-11	TRANSFORMER, BIAS OSCILLATION		* CN902	1-564-500-11	PIN, CONNECTOR 7P	
*****				HE901	1-543-673-11	HEAD, MAGNETIC (ERASE) (DECK B)	
*	1-635-161-11	SWITCH (A) BOARD		HP901	1-543-319-11	HEAD, MAGNETIC (PB) (DECK A)	
		*****		HRP901	1-543-319-11	HEAD, MAGNETIC (REC/PB) (DECK B)	
		< CONNECTOR >		M901	X-3358-212-1	MOTOR (A) ASSY (DECK A)	
* CN901	1-564-499-11	PIN, CONNECTOR 6P		M902	X-3358-212-1	MOTOR (B) ASSY (DECK B)	
		< MOTOR >		△S101	1-570-307-11	SELECTOR, POWER VOLTAGE (VOLTAGE) (E)	
M901	X-3358-212-1	MOTOR (A) ASSY		S901	1-571-736-11	SWITCH, LEAF (MOTOR)	
		< SWITCH >		S902	1-571-736-11	SWITCH, LEAF (PLAY)	
S901	1-571-736-11	SWITCH, LEAF (MOTOR)		S903	1-571-736-11	SWITCH, LEAF (MOTOR)	
S902	1-571-736-11	SWITCH, LEAF (PLAY)		S904	1-571-736-11	SWITCH, LEAF (PLAY)	
*****				S905	1-571-736-11	SWITCH, LEAF (REC)	
*	1-635-161-11	SWITCH (B) BOARD		△T901	1-449-682-11	TRANSFORMER, POWER (E)	
		*****		△T901	1-449-683-11	TRANSFORMER, POWER (CND, US)	
		< CONNECTOR >		△T901	1-450-610-11	TRANSFORMER, POWER (AEP, AUS)	
* CN902	1-564-500-11	PIN, CONNECTOR 7P		*****			
		< MOTOR >				ACCESSORIES & PACKING MATERIALS	
M902	X-3358-212-1	MOTOR (B) ASSY				*****	
		< SWITCH >				1-551-734-11	CORD, CONNECTION (AUDIO) (158cm)
S903	1-571-736-11	SWITCH, LEAF (MOTOR)		*		3-376-136-01	CUSHION (HALF)
S904	1-571-736-11	SWITCH, LEAF (PLAY)				3-757-880-11	MANUAL, INSTRUCTION
						(ENGLISH, FRENCH, SPANISH, PORTUGUESE) (AEP, CND, E)	
						3-757-880-21	MANUAL, INSTRUCTION (ENGLISH) (AUS, US)
						3-757-880-41	MANUAL, INSTRUCTION
						(GERMAN, DUTCH, SWEDISH, ITALIAN) (AEP)	
						3-757-880-51	MANUAL, INSTRUCTION (CHINESE) (E)
				*		3-907-886-61	INDIVIDUAL CARTON (AUS, CND, E, US)
				*		3-907-886-71	INDIVIDUAL CARTON (AEP)
				*		3-912-048-01	CUSHION
				*****			

The components identified by mark  
△ or dotted line with mark △ are  
critical for safety.  
Replace only with part number  
specified.

Les composants identifiés par une  
marque △ sont critiques pour la  
sécurité.  
Ne les remplacer que par une pièce  
portant le numéro spécifié.



<u>Ref.No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
		***** HARDWARE LIST *****	
#1	7-682-548-04	SCREW +BVTT 3X8 (S)	
#2	7-682-548-09	SCREW +BVTT 3X8 (S)	
#3	7-685-534-19	SCREW +BTP 2.6X8 TYPE2 N-S (E)	
#4	7-621-849-00	SCREW, TAPPING	
#5	7-621-775-20	SCREW +B 2.6X5	
#6	7-685-103-19	SCREW +P 2X5 TYPE2 NON-SLIT	
#7	7-685-533-19	SCREW +BTP 2.6X6 TYPE2 N-S	
#8	7-685-133-19	SCREW +P 2.6X6 TYPE2	
#9	7-623-921-01	RING, RETAINING, CAPSTAN	
#10	7-688-001-01	W 2, SMALL	
#11	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	



# TC-W345

## SONY<sup>®</sup> SERVICE MANUAL

*US Model*  
*Canadian Model*  
*AEP Model*  
*E Model*  
*Australian Model*

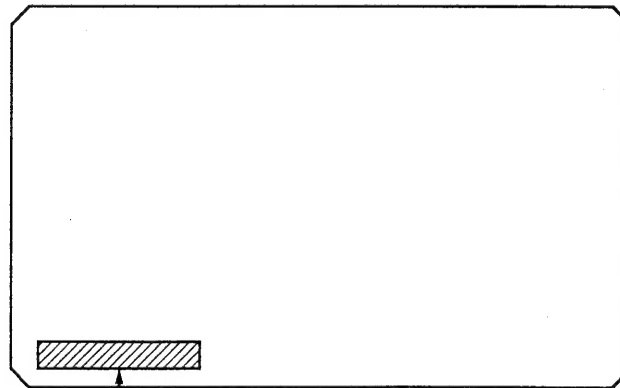
### SUPPLEMENT-1

File this Supplement with the Service Manual.

**Subject :** Schematic Diagram change  
Block Diagram

**New type identification :**

**[AUDIO BOARD]** — Component side —



1-630-771-15

✖ : indicates changed portion

## CHANGE PARTS LIST

Page	Ref. No.	Former	New
18	C153	_____	1-136-437-11 FILM 220PF 5% 630V
	C253	_____	1-136-437-11 FILM 220PF 5% 630V
19	CT301	1-141-225-00 CAP, TUNING, TRIMAR	_____
21	RV104	_____	1-241-767-21 RES, ADJ, CERMET 100K
	RV204	_____	1-241-767-21 RES, ADJ, CERMET 100K

## ELECTRICAL ADJUSTMENTS (Service manual page 5)

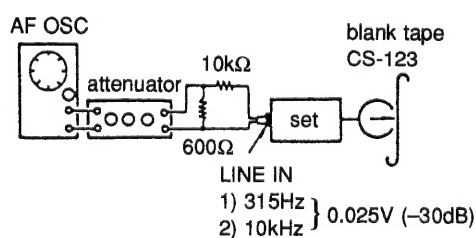
### RECORD BIAS ADJUSTMENT DECK B

#### Setting :

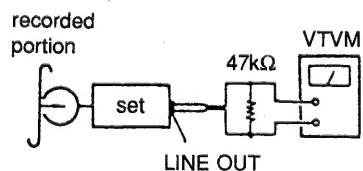
TAPE SELECT : TYPE-I (DECK-B)

#### Procedure :

1. Mode : record

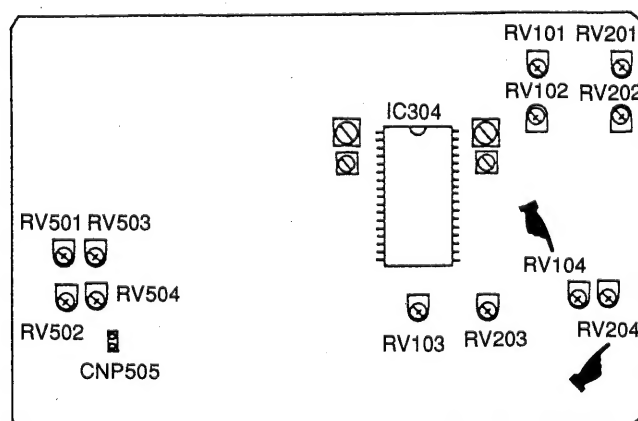


2. Mode : playback



Adjustment Location : Audio Board

— Component side —

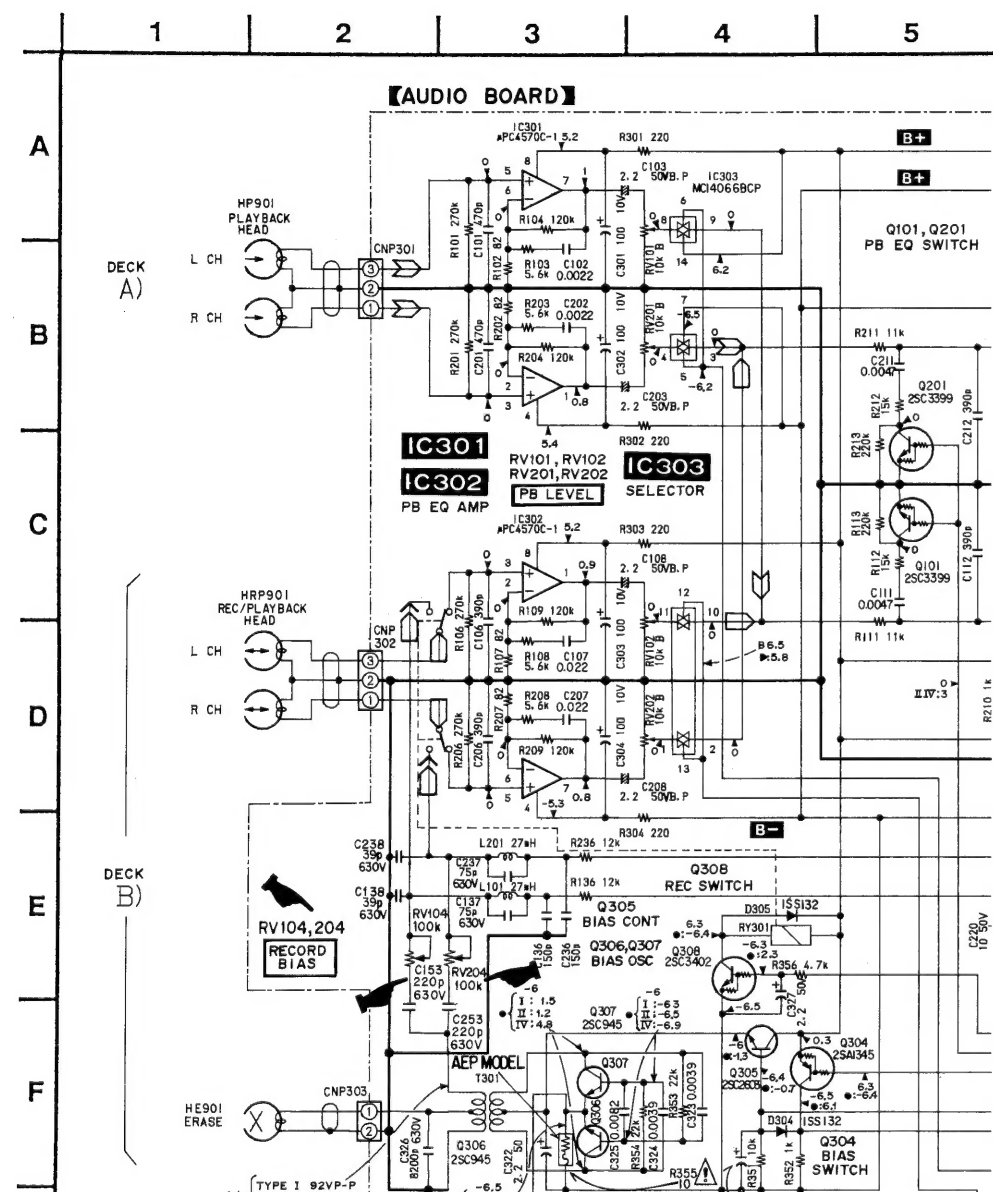


Playback the tape recorded in step 1. If the specification is not satisfied, adjust RV104 (L-CH), RV204 (R-CH) and repeat steps 1 and 2.

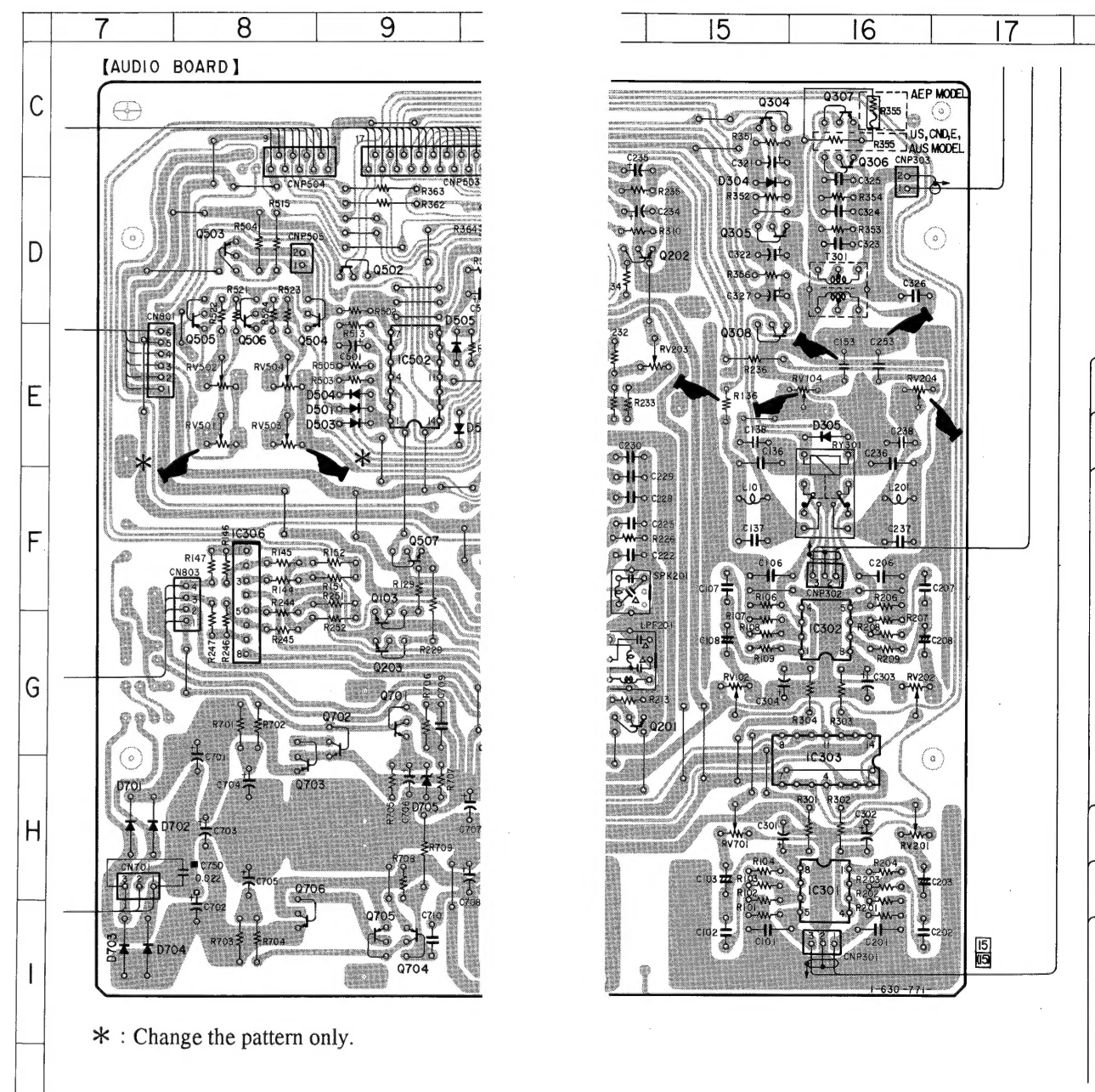
#### Measurement limit :

The LINE OUT level of 10kHz signal relative to that of 315Hz : -0.5dB to 0.5dB.

**SCHEMATIC DIAGRAM (Service manual page 9)**

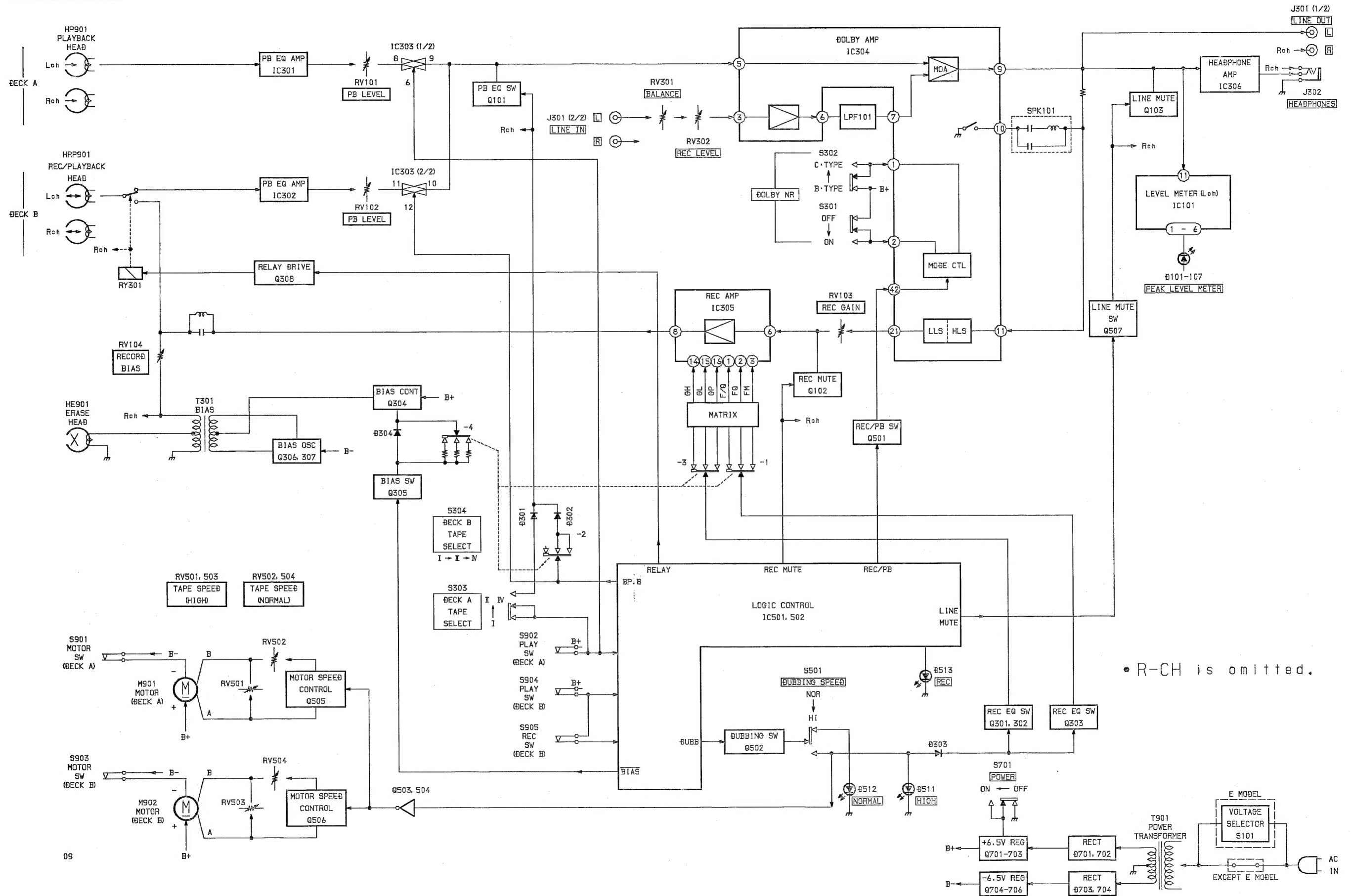


## PRINTED WIRING BOARDS (Service manual page7, 8)





## BLOCK DIAGRAM



• R-CH is omitted.